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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/523,252 | 10/06/2005 | Peter Schmollngruber | 10191/3819 | 8309 |
| 26646 | 7590 | 12/11/2006 | EXAMINER | |
| KENYON & KENYON LLP | | | LEDYNH, BOT L | |
| ONE BROADWAY | | | ART UNIT | |
| NEW YORK, NY 10004 | | | PAPER NUMBER | |
| | | | 2862 | |

DATE MAILED: 12/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/523,252

Applicant(s)

SCHMOLLNGRUBER ET AL.

Examiner

Bot LeDinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/26/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 8 and 10 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Wan (2003/0231098) ("rotationally," paragraph 0001 line 6, paragraph 0005 line 10; "symmetrical," Fig.2D). See Figs.2A-D.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Delden et al (6100686) in view of Wan (2003/0231098). Van Delden et al (6100686) discloses substantially the same invention --strip form and orthogonal in Fig.1; interleave in Fig.2; the device being used in a steering angle sensor system (see col. 1 lines 23-24)-- as claimed. However, Van Delden et al does not disclose that the eight [AMR] resistor elements are made of GMR materials. Wan discloses that GMR

materials "offer much greater sensitivity to magnetic fields when compared to AMR materials" (paragraph 0004). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Van Delden et al by using GMR resistor elements instead of AMR resistor elements in order to provide the device with greater sensitivity to magnetic fields as taught by Wan. As to claim 14, Van Delden et al in view of Wan does not disclose the device being used for detecting an absolute position of a camshaft, or in a steering angle sensor system in a motor vehicle. It is well known in the art that angle sensors such as that of Van Delden et al in view of Wan have been used for detecting an absolute position of a camshaft, or in a steering angle sensor system in a motor vehicle for sensing the speed of the motor vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the angle sensor of Van Delden et al in view of Wan in connection with a camshaft or a steering angle sensor system in order to detect an absolute position of the camshaft or the steering member in a motor vehicle for sensing the speed of the motor vehicle.

Claims 8-10 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adelerhof (20020006017) in view of Wan (2003/0231098). Adelerhof discloses substantially the same invention as claimed (see Fig.4 for "circular fashion", paragraph 0016 lines 1-5, paragraph 0004 lines 3-6, etc.). Although in Fig.4 Adelerhof discloses AMR elements, it does not disclose GMR elements as claimed. Wan discloses that GMR materials "offer much greater sensitivity to magnetic fields when compared to AMR materials" (paragraph 0004). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Adelerhof by using GMR

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resistor elements instead of AMR resistor elements in order to provide the device with greater sensitivity to magnetic fields as taught by Wan. As to claim 14, Adelerhof in view of Wan does not disclose the device being used for detecting an absolute position of a camshaft, or in a steering angle sensor system in a motor vehicle. It is well known in the art that angle sensors such as that of Adelerhof have been used for detecting an absolute position of a camshaft, or in a steering angle sensor system in a motor vehicle for sensing the speed of the motor vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Adelerhof's angle sensor (in view of Wan) in connection with a camshaft or a steering angle sensor system in order to detect an absolute position of the camshaft or the steering member in a motor vehicle for sensing the speed of the motor vehicle.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Bot LeDynch whose telephone number is 5712722231. The Examiner normally does not work on Fridays. The examiner can normally be reached on Maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 5712722180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BL/ 2006



Bot LeDynch, J.D., Ph.D., D.A.
Primary Examiner